



Features :

Humidity

- ▶ 4 digit LED display (Green)
- ▶ RH Sensor Input
- ▶ Sensor enclosed with unit
- ▶ Proportional / ON-OFF control
- ▶ 10A Control Relay output
- ▶ 0% - 100% Humidity control range
- ▶ 5A Alarm Relay Output

Temperature

- ▶ 4 digit LED display (White)
- ▶ RTD Input (PT100)
- ▶ ON-OFF / PID control
- ▶ Auto tune / Self tune PID / Adaptive Tune
- ▶ 10A Control Relay output
- ▶ 5A Alarm Relay Output
- ▶ MODBUS RS485 Communication

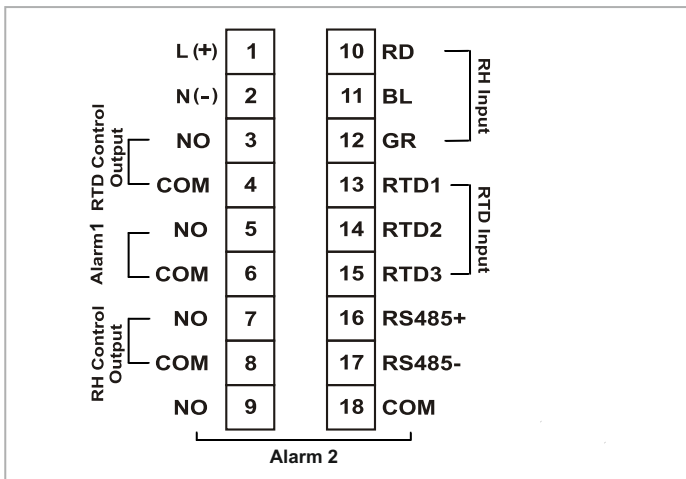
Certifications :   , IP65

Technical specifications

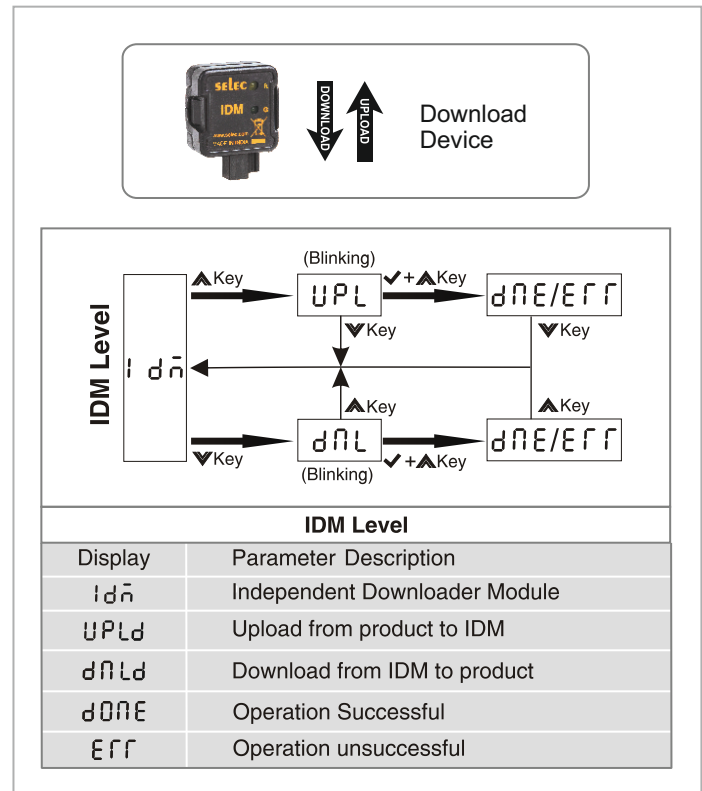
Display specifications	
Display	4+4 Digits 7 Segment LED Display
Height of digit	White digit(Temp process value) : 18.5mm, Green digit(Humidity process value) : 10.9mm
LED indication	OUT1: RTD control AL1 : Alarm output OUT2: RH control AL2 : Alarm output AT : Auto Tune ⇔ : Communication in progress
Input specifications	
Input signal	RH (HS-A-100), RTD PT100
Sampling time	200 msec
Input filter (FTC)	1 to 99 sec
Indication Accuracy	RTD: ±0.25% of span or 1° whichever is greater (20min of warm up time) Cold Junction calibration accuracy for RTD input 0.1% of F.S ± 1° C Humidity: ±3% for RH 10% to 80%, ±4% for below 10% or above 80%.
Resolution	For RTD & RH 1°/0.1°
Temperature unit	°C / °F selectable
Humidity unit	%RH
Output specifications	
RH control output (SPST)	Relay 10A@250VAC or 28VDC
Temperature control output (SPST)	Relay 10A@250VAC or 28VDC
Alarm output (SPST)	2X 5A@250VAC / 30V DC
Functional specifications	
Control action	For Temperature:- Auto tune,Self tune,Adaptive tune. For Humidity:- Proportional,ON-OFF Control
Alarm modes	Deviation high, Deviation low, Band, Full scale high, Full scale low, Break.
Proportional band (P)	0 to 400
Integral time (I)	0 to 3600 sec
Derivative time (D)	0 to 200 sec
Cycle time	0.1 to 100.0 sec
Hysteresis width	0.1 to 99.9°
Auxiliary supply specifications	
Supply voltage	90 to 270V AC / DC @ 50 / 60Hz
Power consumption	6 VA max @250VAC
Environment specifications	
Temperature	Operating : 0°C to 50°C Storage : -20°C to 75°C
Humidity (non - condensing)	95% RH
Mechanical specifications	
Mounting	Panel
Weight	280 gms

Sensor information	
Cable length	1 meter
Dimensions (mm)	52 x 28.8 x 18
Input range	5V DC
Output range	0.5 to 4.5V DC
Sensor temperature	Operating : -20 to 100°C Storage : -40 to 120°C
Weight	33 gms
Optional specifications	
Serial communication	
Interface standard	RS485
Communication address	1 to 99, maximum of 32 units per line
Transmission mode	Half duplex
Transmission protocol	MODBUS RTU
Transmission distance	500m maximum
Transmission speed	115200, 57600, 38400, 19200, 9600, 4800, 2400 bits / sec
Parity	None, Odd, Even
Stop bits	1 or 2
Response time	100 ms (Max and independent of baud rate)

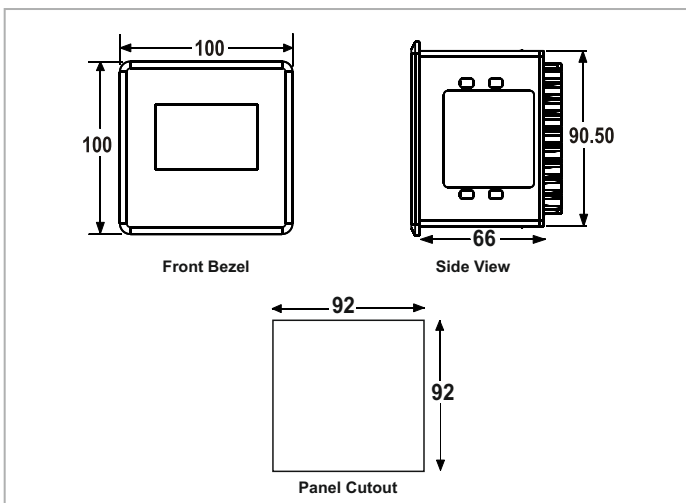
Terminal connections



Independent Downloader module (IDM)



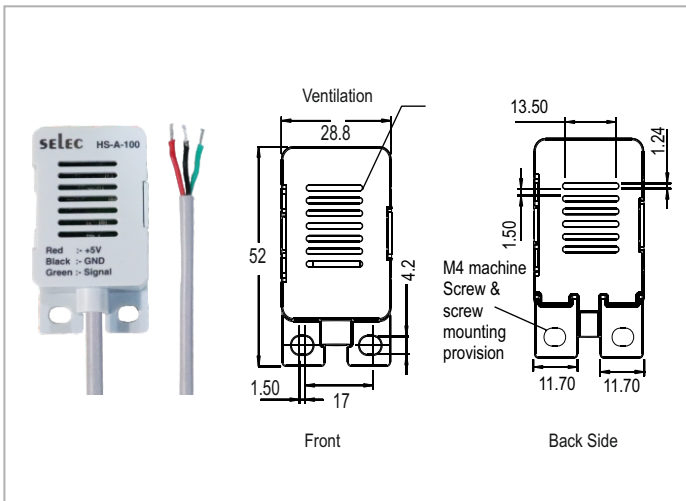
Dimensions (All are in mm)



HUMIDITY + TEMPERATURE CONTROLLER

HTC307

Sensor dimension (Top & Side)

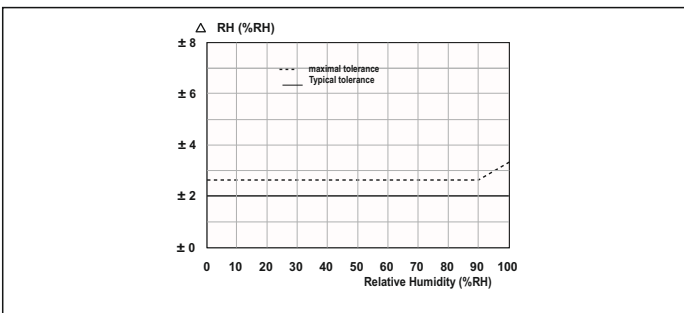


NOTE : Length of the cable can be increased by using compensation cable up to 3 meter. After that accuracy may vary by 1% / Meter.

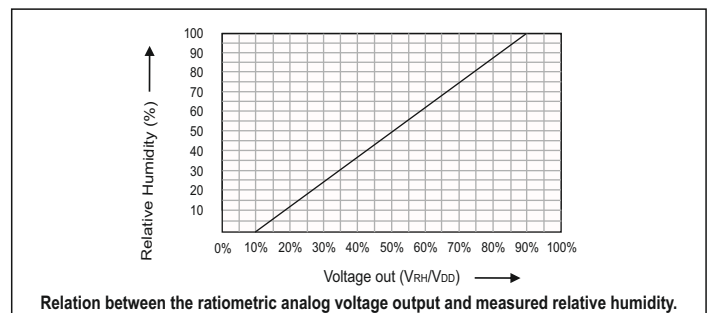
Compliance

Applicable EMI / EMC Standards		
Product Standard : IEC 61326-1		
Category		Standards Compliance
ESD Immunity	IEC 61000-4-2	Level III
Surge Immunity	IEC 61000-4-5	+/- 2 kV common mode, +/- 1 kV differential mode
Radiated Susceptibility	IEC 61000-4-3	Level III, 80 to 1000MHz Level II, 1.4GHz to 2GHz Level I, 2GHz to 2.7GHz
Conducted Susceptibility	IEC 61000-4-6	Level II
Voltage Dips and Interruptions	IEC 61000-4-11	Dips : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C) 70% residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Criteria C) Interruptions : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C)
Conducted Emission	CISPR-11	
Radiated Emission	CISPR-11	
Electrical Fast Transient	IEC 61000-4-4	Level III

Humidity Sensor Performance



Tolerance of RH at 25°C



Ordering information

Product Code	Input	Control Output		Alarm Output		Supply Voltage	Communication (RS485)	Certification
		Humidity	Temperature	AL-1	AL-2			
HTC307	RH + PT100	Relay (10A)	Relay (10A)	Relay (5A)	Relay (5A)	90 to 270V AC / DC	Yes	CE